remarkable, that the line of the nodes is almoſt at right angles with the long axis of the ellipſis; which correſponds nearly with the comets of the years 1580, 1683, and 1686: but thoſe had their perihelions northward of the ecliptic; whereas the perihelion of the laſt, which we have lately ſeen, was to the ſouthward of the ecliptic.

I have the honour to ſubſcribe myſelf, with the moſt perfect eſteem for you, and your ſublime ſtudies, very reſpectfully,

SIR,

Your very humble and obedient Servant,

Hague, 13th Dec. 1757. D. Klinkenberg.

LXI. *Remarks on the different Temperature of the Air at* Edyſtone, *from that obſerved at* Plymouth, *between the 7th and 14th of* July 1757. *By Mr.* John Smeaton, *F. R. S.*

SIR,

Read Jan. 12, 1758. ON the reading of Dr. Huxham's letter at the laſt meeting, ſome obſervations occurred to me, concerning the different temperature of the air, which I had obſerved at the Edyſtone, from what had been obſerved by the Doctor at Plymouth, between the 7th and 14th of July

July laſt: which having been deſired by ſome members to be put into writing, I beg leave to trouble you with the following.

Edyſtone is diſtant from Plymouth about 16 miles, and without the head-lands of the Sound about 11.

The 7th and 8th were not remarkable at Edyſtone for heat or cold: the weather was very moderate, with a light breeze at eaſt; which allowed us to work upon the rock both days, when the tide ſerved.

About midnight, between the 8th and 9th, the wind being then freſh at eaſt, it was remarkably cold for the ſeaſon, as I had more particular occaſion to obſerve, on account of a ſhip that was caſt away upon the rocks. The wind continued cold the 9th all day; which was complained of by ſome of the ſhipwrecked ſeamen, who had not time to ſave their cloaths; and ſo freſh at eaſt, as prevented our going near the rocks, or the wreck; and ſo continued till Sunday the 10th; when, ſeeing no proſpect of a ſudden alteration of weather, I returned to Plymouth in a ſailing boat, wrapped up in my thick coat. As ſoon as we got within the headlands, I could perceive the wind to blow conſiderably warmer; but not ſo warm as to make my great coat uneaſy. Having had a quick paſſage, in this manner I went home, to the great aſtoniſhment of the family to ſee me ſo wrapped up, when they were complaining of the exceſſive heat: and indeed, it was not long before I had reaſon to join in their opinion.

This heat I experienced till Tueſday the 12th, when I again went off to ſea, where I found the air

very temperate, rather cool than warm; and ſo continued till Thurſday the 14th.

In my journal for Wedneſday the 13th I find the following remarks, *viz.* "This evening's tide" (from 6 A. till 12 A.) "the wind at eaſt, but moderate, "with frequent flaſhes of lightning to the ſouth-"ward. Soon after we got on board the ſtore-"veſſel, a ſquall of wind aroſe from the ſouth-weſt "on a ſudden, and continued for about a minute; "part of which time it blew ſo hard, we expected "the maſts to go by the board: after which it was "perfectly calm, and preſently after a breeze re-"turned from the eaſt."

And in the journal of the 14th is entered, "This "morning's tide" *(viz.* from 1 M. to 1 A.) "the "air and ſea quite calm."

Hence it appears, how different the temper of the air may be in a ſmall diſtance; and to what ſmall ſpaces ſqualls of wind are ſometimes confined.

It may not be amiſs further to obſerve upon this head, that once, in returning from Edyſtone, having got within about two miles of the Ramhead, we were becalmed; and here we rolled about for at leaſt four hours; and yet at the ſame time ſaw veſſels, not above a league from us, going out of Plymouth Sound with a freſh of wind, whoſe direction was towards us, as we could obſerve from the trim of their ſails; and as we ourſelves experienced, after we got into it by tacking and rowing.

I am, Sir,

Your moſt humble Servant,

Furnival's-Inn Court,
12th Jan. 1758.

J. Smeaton.

LXII.